

CLAIMS

1. A parallel processing device for generating a shape and/or displaying an image characterized in that a sequential and/or simultaneous parallel processing is carried out on a shape engine and/or a geometric engine and/or a graphic engine which are a displaying machine that creates a three dimensional (3D) shape and/or a two dimensional (2D) shape.

2. A parallel processing device for generating a shape and/or displaying an image according to claim 1, wherein each of said engines is operated and controlled by a relation between a vertex and an edge of a composed triangle or by using a composed triangle itself.

3. A parallel processing device for generating the shape and/or displaying the image according to claim 1, wherein each engine is respectively provided by 4ⁿ pieces of said engines.

4. A parallel processing device for generating a shape and/or displaying an image characterized in that said shape engine as a machine which creates and displays a 3D shape and/or a 2D shape is used as said geometric engine and/or said graphic engine, and said process as said shape engine and/or said geometric engine and/or said graphic engine is executed according to a step of a parallel and/or sequential process.

5. A parallel processing device for generating a shape and/or displaying an image, comprising:

a geometric engine provided with:

an arithmetic unit which operates according to a 1st vertex and a 3rd edge of a predetermined triangle

an arithmetic unit which operates according to a 2nd vertex and a 2nd edge of the triangle, and

an arithmetic unit which operates according to a 3rd vertex and a 1st edge of the triangle,

for geometrically changing data of a 3D shape and/or a 2D shape which are formed by a predetermined shape generating machine; and

a graphic engine provided with:

an arithmetic unit which operates according to the 1st vertex and the 3rd edge of the triangle,

an arithmetic unit which operates according to the 2nd vertex and the 2nd edge of the triangle, and

an arithmetic unit which operates according to the 3rd vertex and the 1st edge of the triangle,

for making displaying data based on the 3D shape and/or the 2D shape which are changed by said geometric engine.

Translation of the Annexes to the International Preliminary Examination Report
(PCT Application No. PCT/JP96/03599)

CLAIMS

(1) (amended) A parallel shape generating and/or image displaying device, wherein on a shape engine and/or geometric engine and/or graphic engine which is a displaying machine that creates a three-dimensional shape or a two-dimensional shape, a sequential and/or simultaneous parallel processing is carried out; and 4ⁿ each of said engines are provided.

(2) (amended) A parallel shape generating and/or image displaying device wherein a shape engine, which is a machine that creates and displays a three-dimensional shape or a two-dimensional shape, is used as a geometric engine and/or graphic engine, and a processing as a shape engine and/or as a geometric engine and/or as a graphic engine is executed according to parallel and/or sequential step.

(3) (amended) A parallel processing device for generating a shape and/or displaying an image, comprising:
 a geometric engine provided with:
 an arithmetic unit which operates according to a 1st vertex and a 3rd edge of a predetermined triangle
 an arithmetic unit which operates according to a 2nd vertex and a 2nd edge of the triangle, and
 an arithmetic unit which operates according to a 3rd vertex and a 1st edge of the triangle,
 for geometrically changing data of a 3D shape and/or a 2D shape which are formed by a predetermined shape generating machine; and
 a graphic engine provided with:
 an arithmetic unit which operates according to the 1st vertex and the 3rd edge of the triangle,
 an arithmetic unit which operates according to the 2nd vertex and the 2nd edge of the triangle, and
 an arithmetic unit which operates according to the 3rd vertex and the 1st edge of the triangle,
 for making displaying data based on the 3D shape and/or the 2D shape which are changed by said geometric engine.

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